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Net Centric Technology Objectives

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Summary



Scenesetters

- Process
 - Naval Capabilities Development
 - Joint Warfighting S&T

Feedback

Key ITECH Deliverables



- Strategic Plan (w/ POA&M) to coordinate all FORCEnet-related RDT&E activities
- Development and execution of "Net-centric Technology Objectives" (NTO)
- Catalegue of all FORCEnet related investments, mapped to capabilities
- Development and execution of "Platform Wholeness Initiative"

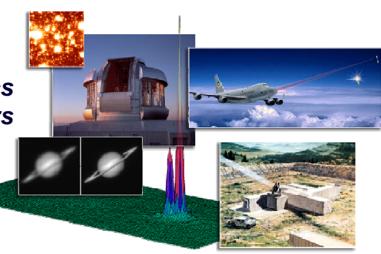
Revolutionary Advances





Adaptive Optics and Lasers

Stealth



Next?





GPS



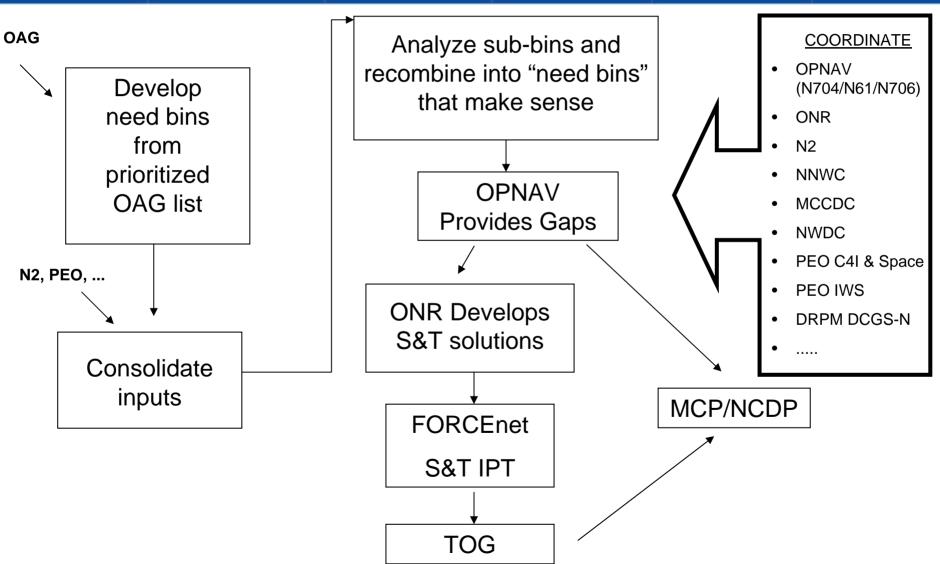
Technology is About Human Beings



- Management is about human beings. Its task is to make people capable of joint performance, to make their strengths effective and their weaknesses irrelevant
- Every enterprise is s learning and teaching environment institution. Training and development must be built into it at all levels.
 - The Essential Drucker, Harper Collins, 2001

FORCEnet Process for PR07 S&T Gap Development





Fleet Top Ten





- 1. Coalition Communications.
- 2. Reliable SATCOM.
- 3. Standards.
- 4. Lack Of Adequate Data Throughput.
- 5. Computer Network Defense (CND).
- 6. Common Operational Picture (COP).
- 7. Real-time Collaboration.
- 8. Streamlines Process To Support Emergent Operational Requirements.
- 9. Next Generation Knowledge Management (NGKM).
- 10. Incorporate Wireless Technology.

FORCEnet Focus Areas



- (1) Common, Persistent Maritime picture improving shared situational awareness across the force
- (2) Computer Network Defense and Information Assurance assured info
- (3) Ubiquitous communications and network infrastructure bandwidth management, IPv6, etc.
- (4) Data link management & architecture improving data link throughput
- (5) Joint Combat ID IFF and Blue Force Tracking
- (6) Persistent and pervasive ISR

Currently Approved Investment



EC	<u>Title</u>
04-01	Position Location Information
04-03	Real-Time Long Range Air Defense Combat ID in Support of Early Engagements
04-05	Marine and UxV Tactical ISR
04-06	Secure Collaboration
04-08	Advanced Communication for FORCEnet
04-09	GIG-Compliant Networking
04-10	Sea Base Collaborative C2
06-01	<u>Combat ID</u> information Management of Coordinated Electronic Surveillance
07-01	Combat ID in the Maritime Domain to Reveal Contact Intent
07-02	Automated Control of Large Sensor Networks

POM 08 Focus Areas



3. Joint combat identification

★5. Persistent ISRT for accurate target discrimination and location

EC 08-13: GWOT-focused

ISR

10. Optimal mix of naval sensors

11. Computer network defense and information assurance

★16. Ubiquitous, secure communications and network infrastructure

EC 08-15: Low-cost Comm on the Move

EC 08-10: Comm

& Networks to the Edge

★19. Common and persistent maritime picture on/below the surface

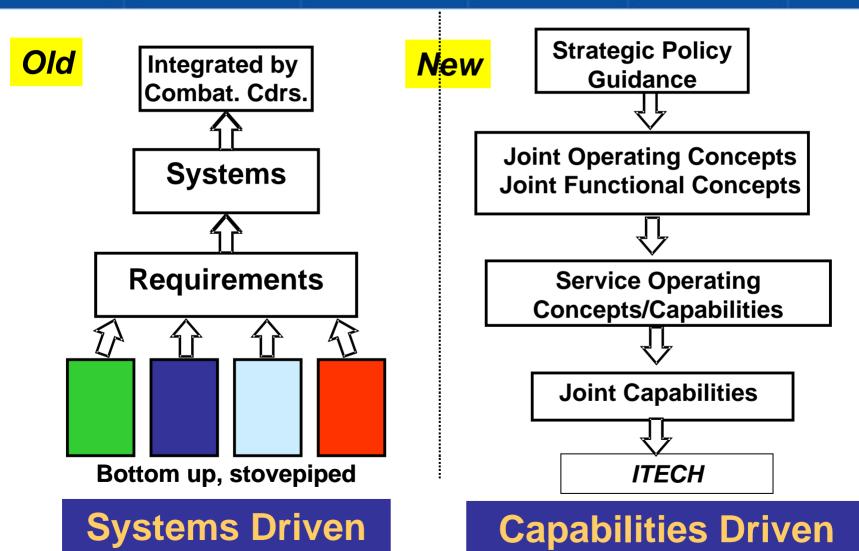
EC 08-16: MDA for MCO-2



Designated POM08 priority interest

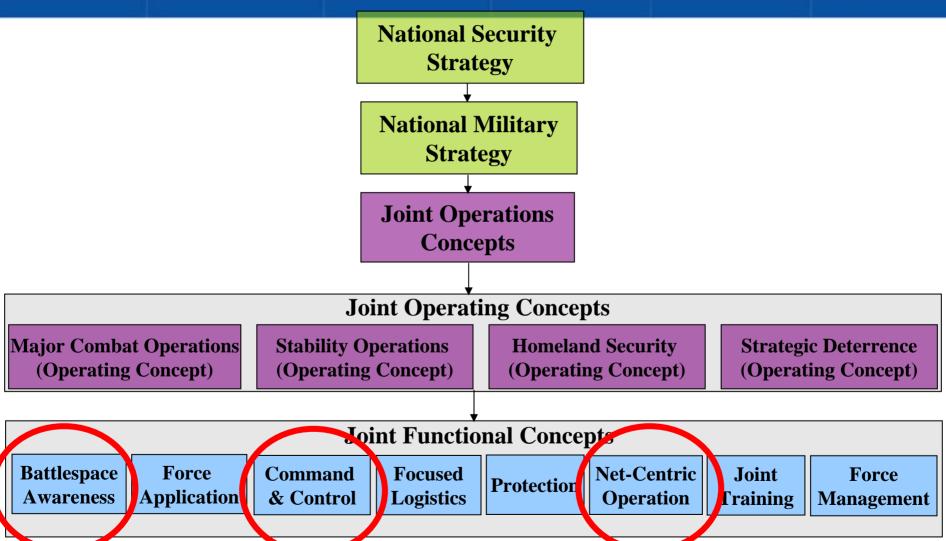
Capabilities-Based Planning





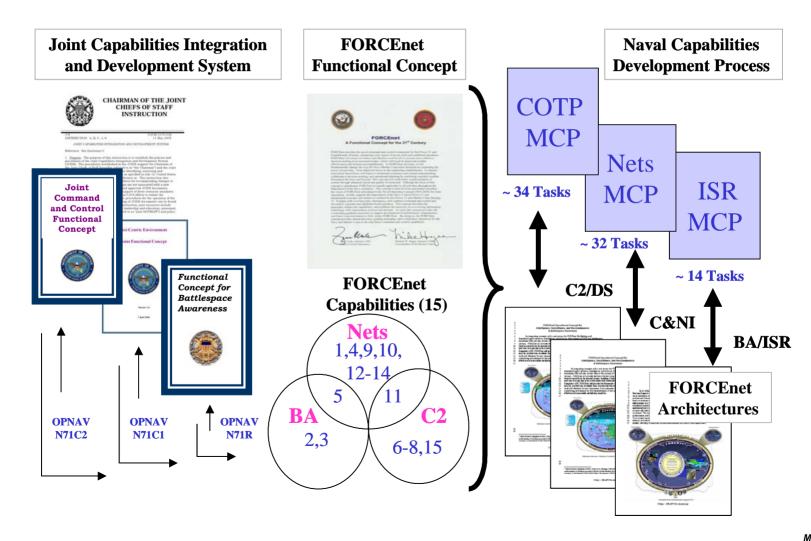
Hierarchy of Joint Concepts





Alignment to Joint Capabilities





Fn5. Process, sort, analyze, evaluate, and synthesize large amounts of disparate information while still providing direct access to raw data as required.

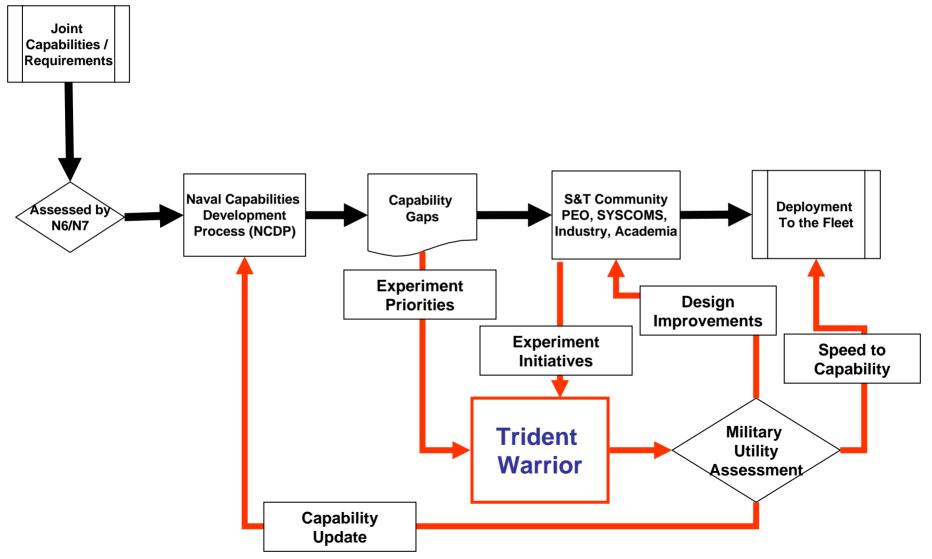


5.9. Synthesize information (refers to the cognitive process of combining elements of information and knowledge to form a more complex whole).

Attributes	Example Measures		
Assured	Confidence value of synthesized data/information.		
Capable	Number of types of information that can be accessed and synthesized.		
Effective	fective Percent of information sources that refer to the same situation/object that can be synthesized.		
Flexible	Number of different presentations that can be accomplished with synthesized information. Percent of available multiple information		
Sufficient	types/sources synthesized. Percent of required syntheses that can be performed.		
Timely	Minutes/hours/days to synthesize information.		
Usable	Subjective determination of <i>usability</i> of synthesized information (fully, marginal, unusable).		

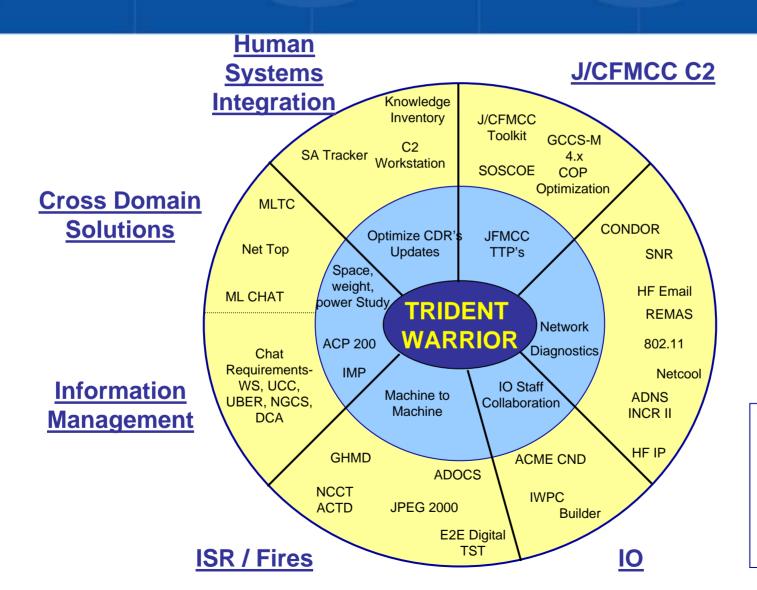
Framework Influences Experimentation





Trident Warrior 05 Focus Areas





Networks

Key:

Technology

Tactics, Techniques & Procedures

Joint Warfighting S&T Plan (JWSTP)



- Joint perspective horizontally across
 6.2 and 6.3 plans
 - Support to requisite technology and advanced concepts for superior Joint and Coalition warfighting
 - Near-, mid-, and long-term needs of joint warfighter are properly balanced and supported
- Support the Joint Functional Concepts

Joint Warfighting S&T Plan (JWSTP)



JWSTP-- Focus to blend emerging technology into warfighter needs

Enhanced Situational Awareness for individuals/Leaders in MOUT Improved Squad Radio --Effective in MOUT Combat ID System -**Effective** in buildings Improved All / Increased Lethality/ **Environment Optics** Wpns (Day, Night, I2. **Capabilities for** Thermal, etc...) MOUT Non Lethal Munitions Remote Intel Collection Capability for

Battalion & below

Precise Position Location inside of buildings

"Thru-wall" scanning capability for MOUT Squad Leader

Improved MOUT
- Individual Mobility
- Tools

Physical Protection Kit (Eyes, Joints, Medical, Hearing, etc...)

"Real time" intel
Down-link to Map
Products



An agreement between Joint Warfighters and S&T Community

Example: DTO E.02 Military Operations in Urban Terrain

Objective: Demonstrate a situation awareness/communications/

geolocation capability in restrictive environments.

Technology Philosophy



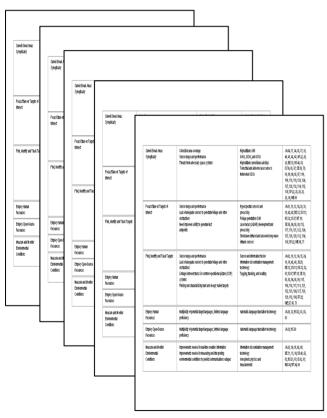
- Focused on standards-based technologies built on open architectures.
- Emphasis on core application components and services that are interoperable with Joint and others

Development of NTOs

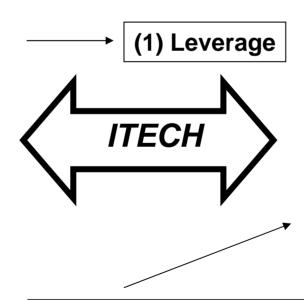


Joint Warfighting S&T Plan

Net-centric S&T Plan



NC, C2, BA etc.



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(2) Emendations:
On going S&T
Other stakeholders requirements (OAG etc.)

Value Added



- Provides framework necessary to shape S&T investment strategy
- Harmonizes time phased delivery of capabilities by stakeholders within the entire acquisition continuum
- Coordinates Naval S&T with Joint and other Service S&T
- Potential for alignment with other services
- Leverages Joint S&T (ACTDs etc.)
- Process for identifying Naval components to S&T plan
- Informs criteria for prioritization

Wisdom of Crowds



New Yorker columnist James Surowiecki explores a deceptively simple idea that has profound implications: large groups of people are smarter than an elite few, no matter how brilliant—better at solving problems, fostering innovation, coming to wise decisions, even predicting the future.

